

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended)

Peptide or peptide derivative consisting essentially of:

(a) the amino acid sequence (SEQ ID NO:1)

D-V-N-Y-A-F-L-H-A-T-D-L-L-P-A-C-D-G-E-R,

(b) the amino acid sequence (SEQ ID NO:2)

S-N-M-Y-A-M-M-I-A-R-F-K-M-F-P-E-V-K-E-K,

(c) the amino acid sequence (SEQ ID NO:3)

N-W-E-L-A-D-Q-P-Q-N-L-E-E-I-L-M-H-C-Q-T,

(d) the amino acid sequence (SEQ ID NO: 4)

T-L-K-Y-A-I-K-T-G-H-P-R-Y-F-N-Q-L-S-T-G,

(e) the amino acid sequence (SEQ ID NO: 5)

P-R-Y-F-N-Q-L-S-T-G-L-D-M-V-G-L-A-A-D-W,

(f) the amino acid sequence (SEQ ID NO:6)

T-Y-E-I-A-P-V-F-V-L-L-E-Y-V-T-L-K-K-M-R,

(g) the amino acid sequence (SEQ ID NO: 7)

F-F-R-M-V-I-S-N-P-A-A-T-H-Q-D-I-D-F-L-I, wherein the peptide or peptide derivative of SEQ ID NO: 7 ~~comprises~~has a C-terminal isoleucine residue,

(h) a partial region of the amino acid sequence shown in (a), (b), (c), (d), (e), (f) or (g) with a length of at least 6 amino acids, wherein said partial region of (g) has a C-terminal isoleucine residue, or

(i) an amino acid sequence which has a binding specificity or affinity to human MHC molecules equivalent to the amino acid sequence shown in (a), (b), (c), (d), (e), (f), (g) or (h), wherein the peptide or derivative which has a binding specificity or affinity to human MHC molecules equivalent to the amino acid sequence shown in (g) has a C-terminal isoleucine residue;

wherein said peptide or peptide derivative has a length of up to 25 amino acids, wherein the peptide derivative is a peptide derivatized by a chemical reaction or in which ~~at least one~~ or several amino acid~~s~~s ~~has~~have been replaced by a naturally occurring or non-naturally occurring amino acid homologue, and wherein specificity indicates a capability of recognizing DR-type MHC class II molecules.

2. (Currently amended)

Peptide or peptide derivative as claimed in claim 1, wherein ~~its~~said peptide or peptide derivative has at least a length of eight amino acids.

3. (Currently amended)

Peptide or peptide derivative as claimed in claim 1 or 2, wherein ~~it~~said peptide or peptide derivative has at least a length of 10 amino acids.

Claim 4 canceled.

5. (Previously presented)

Peptide or peptide derivative as claimed in one of the claims 1 and 2, wherein said peptide or peptide derivative carries a marker group.

Claims 6-17 canceled.

18. (Previously presented)

Pharmaceutical composition, wherein it contains a peptide or peptide derivative as claimed in any one of claims 1 and 2 as the active component if desired in combination with common pharmaceutical additives.

Claims 19-54 canceled.

55. (Previously presented)

The peptide or peptide derivative of claim 1, wherein the peptide derivative comprises a back-bone or amino acid side groups consisting of derivatized amino groups, carboxyl groups and hydroxyl groups.

56. (Previously presented)

The peptide or peptide derivative of claim 1, wherein the amino acid homologues are 4-hydroxyproline, 5-hydroxylysine, 3-methylhistidine, homoserine, ornithine, β -alanine or 4-amino butyric acid.

57. (Currently amended)

Peptide or peptide derivative consisting of:

(a) the amino acid sequence (SEQ ID NO:1)

D-V-N-Y-A-F-L-H-A-T-D-L-L-P-A-C-D-G-E-R,

(b) the amino acid sequence (SEQ ID NO:2)

S-N-M-Y-A-M-M-I-A-R-F-K-M-F-P-E-V-K-E-K,

(c) the amino acid sequence (SEQ ID NO:3)

N-W-E-L-A-D-Q-P-Q-N-L-E-E-I-L-M-H-C-Q-T,

(d) the amino acid sequence (SEQ ID NO:4)

T-L-K-Y-A-I-K-T-G-H-P-R-Y-F-N-Q-L-S-T-G,

(e) the amino acid sequence (SEQ ID NO:5)

P-R-Y-F-N-Q-L-S-T-G-L-D-M-V-G-L-A-A-D-W,

(f) the amino acid sequence (SEQ ID NO:6)

T-Y-E-I-A-P-V-F-V-L-L-E-Y-V-T-L-K-K-M-R,

(g) the amino acid sequence (SEQ ID NO:7)

F-F-R-M-V-I-S-N-P-A-A-T-H-Q-D-I-D-F-L-I, wherein the peptide or peptide derivative of SEQ ID NO:7 ~~comprises~~has a C-terminal isoleucine residue,

(h) a partial region of the amino acid sequence shown in (a), (b), (c), (d), (e), (f) or (g) with a length of at least 6 amino acids, wherein said partial region of (g) has a C-terminal isoleucine residue, or

(i) an amino acid sequence which has a binding specificity or affinity to human MHC molecules equivalent to the amino acid sequence shown in (a), (b), (c), (d), (e), (f), (g) or (h), wherein the peptide or derivative which has a binding specificity or affinity to human MHC molecules equivalent to the amino acid sequence shown in (g) has a C-terminal isoleucine residue:

wherein said peptide or peptide derivative has a length of up to 25 amino acids, wherein the peptide derivative is a peptide derivatized by a chemical reaction or in which ~~at least one~~ or several amino ~~acid~~acids ~~has~~have been replaced by a naturally occurring or non-naturally occurring amino acid homologue, and wherein specificity indicates a capability of recognizing DR-type MHC class II molecules.

58. (Previously presented)

The peptide or peptide derivative of claim 1, wherein the DR-type is DR1, DR2, DR4, DR6, or a subtype corresponding thereto.

59. (Previously presented)

The peptide or peptide derivative of claim 57, wherein the DR-type is DR1, DR2, DR4, DR6, or a subtype corresponding thereto.

60. (New)

Peptide or peptide derivative consisting essentially of:

(a) the amino acid sequence (SEQ ID NO:1)

D-V-N-Y-A-F-L-H-A-T-D-L-L-P-A-C-D-G-E-R,

(b) the amino acid sequence (SEQ ID NO:2)

S-N-M-Y-A-M-M-I-A-R-F-K-M-F-P-E-V-K-E-K,

(c) the amino acid sequence (SEQ ID NO:3)

N-W-E-L-A-D-Q-P-Q-N-L-E-E-I-L-M-H-C-Q-T,

(d) the amino acid sequence (SEQ ID NO: 4)

T-L-K-Y-A-I-K-T-G-H-P-R-Y-F-N-Q-L-S-T-G,

(e) the amino acid sequence (SEQ ID NO: 5)

P-R-Y-F-N-Q-L-S-T-G-L-D-M-V-G-L-A-A-D-W,

(f) the amino acid sequence (SEQ ID NO:6)

T-Y-E-I-A-P-V-F-V-L-L-E-Y-V-T-L-K-K-M-R,

(g) the amino acid sequence (SEQ ID NO: 7)

F-F-R-M-V-I-S-N-P-A-A-T-H-Q-D-I-D-F-L-I, wherein the peptide or peptide derivative of SEQ ID NO: 7 has a C-terminal isoleucine residue,

(h) a partial region of the amino acid sequence shown in (a), (b), (c), (d), (e), (f) or (g) with a length of at least 6 amino acids, wherein said partial region of (g) has a C-terminal isoleucine residue, or

(i) an amino acid sequence which has a binding specificity or affinity to human MHC molecules equivalent to the amino acid sequence shown in (a), (b), (c), (d), (e), (f), (g) or (h);

wherein said peptide or peptide derivative has a length of up to 25 amino acids, wherein the peptide derivative is a peptide derivatized by a chemical reaction or in which one or several amino acids have been replaced by a naturally occurring or non-naturally occurring amino acid homologue, and wherein specificity indicates a capability of recognizing DR-type MHC class II molecules.

61. (New)

Peptide or peptide derivative consisting of:

(a) the amino acid sequence (SEQ ID NO:1)

D-V-N-Y-A-F-L-H-A-T-D-L-L-P-A-C-D-G-E-R,

(b) the amino acid sequence (SEQ ID NO:2)

S-N-M-Y-A-M-M-I-A-R-F-K-M-F-P-E-V-K-E-K,

(c) the amino acid sequence (SEQ ID NO:3)

N-W-E-L-A-D-Q-P-Q-N-L-E-E-I-L-M-H-C-Q-T,

(d) the amino acid sequence (SEQ ID NO:4)

T-L-K-Y-A-I-K-T-G-H-P-R-Y-F-N-Q-L-S-T-G,

(e) the amino acid sequence (SEQ ID NO:5)

P-R-Y-F-N-Q-L-S-T-G-L-D-M-V-G-L-A-A-D-W,

(f) the amino acid sequence (SEQ ID NO:6)

T-Y-E-I-A-P-V-F-V-L-L-E-Y-V-T-L-K-K-M-R,

(g) the amino acid sequence (SEQ ID NO:7)

F-F-R-M-V-I-S-N-P-A-A-T-H-Q-D-I-D-F-L-I, wherein the peptide or peptide

derivative of SEQ ID NO:7 has a C-terminal isoleucine residue,

(h) a partial region of the amino acid sequence shown in (a), (b), (c), (d), (e), (f) or (g) with a length of at least 6 amino acids, wherein said partial region of (g) has a C-terminal isoleucine residue, or

(i) an amino acid sequence which has a binding specificity or affinity to human MHC molecules equivalent to the amino acid sequence shown in (a), (b), (c), (d), (e), (f), (g) or (h):

wherein said peptide or peptide derivative has a length of up to 25 amino acids, wherein the peptide derivative is a peptide derivatized by a chemical reaction or in which one or several amino acids have been replaced by a naturally occurring or non-naturally occurring amino acid homologue, and wherein specificity indicates a capability of recognizing DR-type MHC class II molecules.